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LETTER DATED 19 FEBRUARY 1998 FROM THE EXECUTIVE CHAIRMAN OF THE SPECIAL COMMISSION ESTABLISHED BY THE SECRETARY-GENERAL PURSUANT TO PARAGRAPH 9 (b) (i) OF SECURITY COUNCIL RESOLUTION 687 (1991) ADDRESSED TO THE PRESIDENT OF THE SECURITY COUNCIL

I have the honour to refer to the letter which I addressed to the President of the Security Council on 17 December 1997 (S/1997/987) setting out the results of the visit I made to Baghdad from 12 to 16 December 1997.

I invite attention, in particular, to paragraph 38 of that report (S/1997/987, annex) setting out the modalities for the conduct of technical evaluation meetings agreed to by the Commission and by Iraq as follows:

> "(a) The Executive Chairman would invite qualified objective international experts to take part and participate in the Commission's team. They would be chosen from the countries having the necessary expertise;
>
> "(b) The Commission would prepare a dossier for the team containing all the relevant information. The dossier would be made available to the Iraqi side to enable it to respond to relevant questions at the technical evaluation meeting;
>
> "(c) The discussions at the meetings would be conducted in an open and continuous manner in order to enable joint evaluation of technical issues;
>
> "(d) The Commission's team would advise the Executive Chairman on its findings as a result of the meetings. The Executive Chairman would then incorporate these findings in appropriate reports to the Security Council and the Government of Iraq."

The Commission had agreed to these meetings in view of Iraq's claims that it had destroyed and/or no longer had any weapons of mass destruction and, where there was disagreement between the Commission and Iraq on these issues of substance, those disagreements should be settled in technical "seminars" with the participation of both international and Iraqi experts.

I wish to inform the Council that the first two technical evaluation meetings have now been concluded. The first of these meetings, related to the accounting for Iraq's special warheads for biological and chemical weapons, was held in Baghdad from 1 to 6 February 1998. The second meeting, related to Iraq's activities in connection with the chemical agent VX, also took place in Baghdad, from 2 to 6 February 1998. The results of both these meetings have now been transmitted to me. As will be seen from the paragraph in my letter of 17 December 1997 quoted above, I undertook to incorporate the findings in appropriate reports to the Security Council and the Government of Iraq.

I am now submitting herewith the body of the two reports, together with the conclusions in full (see enclosures I and II, respectively). There are two annexes attached to each report, one containing the list of participants and the second the remarks made by Iraq in the context of the outline of the conclusions which was conveyed to the Iraqi participants by the Commission's expert teams prior to their final formulation. I am also transmitting a copy of this letter with the same attachments today to the Government of Iraq.

(Signed) Richard BUTLER

Enclosure I

REPORT ON THE TECHNICAL EVALUATION MEETING ON CHEMICAL WARFARE AGENT VX

12 February 1998

1. Introduction

1.1 According to the provisions of the Security Council Resolution 687 (1991), Iraq shall unconditionally accept the destruction, removal, or rendering harmless, under international supervision, of all chemical weapons and all stocks of agents and those related subsystems and components and all research, development, support and manufacturing facilities. Iraq shall submit a declaration on the locations, amounts, and types of above mentioned items. Iraq did not declare any VX activities in its first three declarations between April and July 1991. In August 1991 Iraq declared some R&D activities on VX. In the course of United Nations Special Commission's (UNSCOM) verification, Iraq did not declare any production or attempts to produce VX until August 1995. Iraq between 1995 and June 1996, increased the declared amount of produced VX from 240 kg to 3.9 tonnes.

1.2 UNSCOM, in its October 1997 report to the Security Council, stated that Iraq had not disclosed the full scope of its past VX-activities. This assessment was confirmed by the report of the Emergency Session of the Special Commission in November 1997. A Technical Evaluation Meeting (TEM) was planned to further clarify the VX issue.

2. Preparation

2.1 The Commission invited experts from countries where VX expertise is available to participate in the TEM. The UNSCOM international expert team comprised 15 experts from 9 countries. The team was supplemented by three experts from the Office of the Special Commission. The list of participants in the UNSCOM team is appended (attachment 1). Prior to the TEM, the Commission sent to Iraq a dossier with all Iraq's declarations on VX and documents provided by Iraq to support its declarations. Iraq had provided its dossier on VX to UNSCOM earlier.

2.2 The UNSCOM international expert team assembled in Bahrain 7 days prior to the beginning of the TEM for preparation. In the framework of the preparation, the members of the team had access to all information on VX available to the Commission. This included documents from the Haidar Farm (obtained by UNSCOM in 1995), inspection reports, interviews, information from supporting Governments, sampling reports, et cetera. With this background information, the team members composed a Commentary Note after an assessment of Iraq's declarations, together with a list of remaining issues to be discussed with the Iraqi side during the TEM (attachment 2).

3. Conduct of the TEM

3.1 The technical evaluation meeting on the VX-activities was conducted in Baghdad during the period 2 - 6 February 1998. UNSCOM's international expert team attended ten sessions of

discussions with the Iraqi side. The Iraqi delegation was led by Lt Gen Amer Hammoodi Al Sa'adi (list of participants from the Iraqi side is appended, attachment 3). The TEM was chaired by Dr. Horst Reeps from the office of the Special Commission.

3.2 The TEM began with an Iraqi presentation on VX, based on information previously provided. The Iraqi side stated that it had been interested in having VX in its arsenal; however, apart from some success in synthesizing VX at the R&D level, all attempts to produce VX at industrial scale had failed. Consequently, no weaponization of VX took place. For storage and corrosion tests three aerial bombs and one artillery rocket warhead were filled with VX. The Iraqi side declared production of a total of 3.9 tonnes of VX and VX-hydrochloride in 7 industrial size batches in the period of late 1987 to early 1988 and in April 1990. The Iraqi side declared the production of 58 tonnes of the essential VX precursor choline, mainly at the end of 1988 and early 1989. According to the Iraqi side all produced VX had degraded and was disposed of. The majority of the 750 tonnes of procured and produced precursors had been either destroyed through aerial bombardments during the Gulf War or had been unilaterally destroyed by Iraq in the summer of 1991. The Iraqi side considered its declarations to be sufficiently supported by the documentation and explanations provided to the Commission.

3.3 The UNSCOM international expert team then presented its Commentary Note on the declarations provided by Iraq. The Commission pointed out the changes in Iraq's declarations on VX from April 1991 to the present. These changes, (for example, VX quantities raised to 3.9 tonnes), had resulted from the Commission's verification efforts. To verify the full extent of Iraq's VX-programme the UNSCOM international expert team expressed its need to obtain from Iraq complete documentation and verifiable evidence, in the form of production records, R&D reports, and munitions trials.

3.4 The Iraqi side and the UNSCOM international expert team chose to discuss VX R&D, production, and weaponization issues. The Iraqi side undertook to make available for the discussions relevant personnel involved in the past VX activities and to respond to questions raised by the UNSCOM international expert team. The head of the Iraqi delegation and the Iraqi experts presented important aspects of the VX programme. Iraqi experts were frequently called upon to answer questions. However, the head of the Iraqi delegation repeatedly responded to questions of a very technical nature, overriding efforts made by Iraqi experts to respond to questions raised by the UNSCOM international expert team. Hence, many issues remained insufficiently elucidated.

3.5 The UNSCOM chairman invited the international experts to conduct the discussions in order for their concerns to be clarified. This process was hampered by Iraq's failure to provide an interpreting service (Russian, French and Chinese). In spite of this, all the international experts actively participated in the discussions.

3.6 The UNSCOM international expert team provided to the Iraqi side, on a case by case basis (during the TEM), additional data available to the Commission. The decision, upon that information which might be shared with the Iraqi side in addition to the dossier prepared by

UNSCOM, was made by all participants of the UNSCOM international expert team within the mandate given by the Executive Chairman of the Special Commission.

3.7 The UNSCOM international expert team members discussed results of the TEM and prepared their initial conclusion (attachment 4). According to the agreed modalities, it was then presented to the Iraqi side during the final meeting. The UNSCOM international expert team conveyed its conclusions that Iraq was certainly able to produce VX , and probably did produce VX in quantity, and that so far the achieved level of verification was not satisfactory.

3.8 In its final comments, Iraq stated that no production and weaponization of VX took place. The Iraqi side agreed that the discussions were not without merit, and emphasised that they gave good developments with merits that should not be interrupted. The Iraqi side requested incorporation of its comments into the UNSCOM international experts' report on the TEM. The final comments of the Iraqi side are appended (Attachment 5). The UNSCOM international expert team noted that the meetings were conducted in a professional manner.

4. Conclusion of Evaluation

4.1 The Iraqi declaration portrays a successful research effort which failed to be scaled up to production quantities. The major difficulty facing the UNSCOM international expert team was their assessment that no full disclosure on the subject of VX has yet been made by the Iraqi side. As a result of this, in the team's expert opinion, there is no credible technical reason why Iraq should fail in the production of VX.

4.2 In the evaluation of the R&D capabilities with respect to VX, the Iraqi side has demonstrated their understanding of four major synthesis routes, yet have no credible technical justification for not successfully scaling up two of these routes. It is assessed that they had no significant difficulty in analysing, identifying and carrying out structural studies of all of the relevant compounds.

4.3 In evaluating the ability of Iraq to carry the production of VX successfully to the industrial scale, it is important to note that Muthanna State Establishment (MSE) had, since late 1984, been operational in industrial scale organophosphorous synthesis, using more difficult processes than are involved in the production of VX. Scaling up operations were carried out on all CW-related processes in MSE except VX, according to the Iraqi side. This is incompatible with the scale of the research effort on VX, stated by Iraq to have included six or seven separate research teams.

4.4 Accordingly, the UNSCOM international expert team concludes that Iraq was capable of producing significant quantities of VX before January 1991. This may have been as much as 50 to 100 tonnes of VX, albeit of an uncertain quality. Currently, the team assesses that Iraq has the know how and process equipment, and may possess precursors to manufacture as much as 200 tonnes of VX.

4.5 Turning to the subject of weaponisation, it was stated by the Iraqi side that weapons were qualified for CW use by conducting general testing, rather than an agent-specific test. This means that existing munitions suitable for CW use and known to the Commission, could have been used for VX. Progress and achievements in the binary VX weaponisation programme are unclear. The UNSCOM international expert team did not have enough information on the VX weaponisation issue, and the Iraqi side did not provide any further technical details, in order to reach any specific conclusion.

4.6 The Iraqi side continues to exhibit a lack of transparency in certain areas. There is a marked reluctance to clarify any aspect of the relationship between Iraq's primary CW production site, the Muthanna State Establishment (MSE) and the Military, including military requirements for CW weapons and the doctrine for use; no verification of the directives placed on MSE by the Military Industrial Commission (MIC) and other authorities is possible; no verification of events between late 1988 and early 1991 is possible; Iraq's accounts of the lack of scaling up of the VX process are not credible; no constructive discussion was possible on the subject of the dispersal of key production facilities from MSE. The Iraqi side continues to assert that no further documentation is currently available in Iraq.

4.7 As a result of deliberations carried out by the UNSCOM international expert team during the preparatory phase of the TEM, a dedicated sampling team was tasked by the UNSCOM international expert team during the execution of the TEM to collect information in key areas in order to support the verification process.

4.8 It is clear that the capability to produce VX was regarded as being of the utmost importance to Iraq in 1987 and beyond. Iraq's unilateral destruction of VX essential components and materials, coupled with the denial until 1995 of attempts to produce VX at an industrial scale can only reinforce that view. Therefore, the retention of a VX capability by Iraq cannot be excluded by the UNSCOM international expert team.

Horst Reeps
Andy Anderson
Gerald Brubaker
Bernhard Brunner
Chengxin Pei
Frank Dagostin
Roman Evmenov
Daniel Froment
Rod Godfrey
Raymond Levet
Åke Sellström
Victor Vorobiov
Vadim Zubrilin
Igor Mitrokhin
Cees Wolterbeek

Attachment 1
to the Report on the Technical Evaluation Meeting
on Chemical Warfare Agent VX

UNSCOM INTERNATIONAL EXPERT TEAM FOR THE TECHNICAL EVALUATION MEETING

1.	Horst Reeps	UNSCOM	Chairman of the TEM Federal Republic of Germany
2.	Andy Anderson	EXPERT	United States of America
3.	Gerald Brubaker	EXPERT	United States of America
4.	Bernhard Brunner	EXPERT	Switzerland
5.	Frank Dagostin	EXPERT	United States of America
6.	Roman Evmenov	EXPERT	Russian Federation
7.	Daniel Froment	EXPERT	France
8.	Rod Godfrey	EXPERT	United Kingdom
9.	Raymond Levet	EXPERT	France
10.	Chengxin Pei	EXPERT	Peoples' Republic of China
11.	Åke Sellström	EXPERT	Sweden
12.	Victor Vorobiov	EXPERT	Russian Federation
13.	Vadim Zubrilin	EXPERT	Russian Federation
14.	Igor Mitrokhin	UNSCOM	Russian Federation
15.	Cees Wolterbeek	UNSCOM	The Netherlands
16.	Chris Carr	LINGUIST	United Kingdom
17.	Omar Kalai	LINGUIST	United States of America
18.	Keith Strother	REPORTER	United States of America

Attachment 2
to the Report on the Technical evaluation Meeting
on Chemical Warfare Agent VX

COMMENTARY NOTE ON CHEMICAL WARFARE AGENT VX
(Prepared by the UNSCOM international expert team)

2 February 1998

1. Declarations and Documents provided by Iraq.

In the period from 1991 to 1997 Iraq has submitted a number of declarations on VX and has provided documents to support its declarations. Until 1995, Iraq sought to portray its VX-related activities as being much smaller in ambition and scope than in fact they were. After 1995 Iraq acknowledged attempts to produce VX at industrial scale, including the modification of facilities for the VX and VX precursor production and the production and procurement of significant quantities of VX precursors.

1.1. Declarations.

VX and its precursors were completely omitted from Iraq's declarations of 1991. In August 1991, UNSCOM in the course of inspections was informed by Iraqi officials that R&D activities on VX had been carried out by the Muthanna State Establishment (MSE).

In 1992, Iraq declared that 200 tonnes of phosphorus pentasulphide had been destroyed unilaterally by Iraq in the Summer of 1991 without UNSCOM verification. Iraq made no reference to VX.

In March 1995, Iraq stated that 260 kg of VX were synthesized in 20-liter vessels at the R&D Center at MSE. 160 kg of VX were filled into three LD-250 aerial bombs for storage tests. Iraq stated that 10 tonnes of choline had been produced, an essential VX precursor. In Summer 1995 Iraq declared that the remaining choline (9 tonnes) had been destroyed unilaterally in the summer of 1988.

In May 1995, Iraq declared the production of 1,250 kg of VX in 50-liter evaporator units and the production and procurement of some 650 tonnes of VX precursors. Iraq claimed that the production of VX had failed and that the remaining precursors had been destroyed either during the aerial bombardment in 1991 or unilaterally by Iraq in the summer of 1991.

In 1996, Iraq declared that 7 industrial-scale batches of VX were produced at 3 plants in Muthanna. One facility, the Dhia plant, had been specifically modified for the production of VX and its precursors. Three aerial bombs AALD-500 and one 122 mm artillery rocket had been filled with VX for storage and corrosion tests. Iraq declared that it produced a total of 58 tonnes

of choline. Iraq admitted the involvement of other organisations in R&D activities on VX, including binary VX.

In 1997, Iraq submitted further data on R&D, production and disposal of VX and its precursors.

1.2. Documents provided by Iraq.

In the period from 1995 to 1997, Iraq provided documents to support its declarations on VX. These included data on the production of 3 batches of VX at Dhia plant in 1988, storage inventories of chemicals in 1990, including VX precursors, R&D plans and their implementations. These documents were consistent with the declared data on the purity of VX produced in 1988 and the quantities of available VX precursors by the end of 1990.

Many documents provided by Iraq support Iraq's statements that there were no munitions filled with VX or bulk VX stored at Muthanna by the end of 1990: the storage inventory of CW agent at Muthanna, the reports of the Director General (DG) of Muthanna, documents on distribution of chemical munitions. Those documents do not contain references to VX.

There were documents provided by Iraq which were not consistent with Iraq's presentation of the VX issue. The VX produced was not included in the inventories. Mentioned in the inventories are quantities of phosphorus penta-sulphide which do not correspond to declared quantities. Muthanna did report a potential for the production of VX. MIC insisted on the production of VX and filling by the end of 1990.

1.3. Iraq's Current Position on VX (Jan 98).

Iraq produced in total 3.9 tonnes of VX in 7 batches. 5 batches were produced in 1988 and 2 batches in 1990. Dhia plant was modified for VX production. Three aerial bombs and one 122-mm rocket warhead were filled with VX for storage and corrosion tests . All attempts were considered as failures due to the low purity and stability of VX.

Routes A and B were used for production of 7 batches of VX. R&D activities on other synthesis routes were continued, including binary VX.

Iraq procured and produced the following quantities of VX precursors: 250 tonnes of phosphorus pentasulphide, 250 tonnes of diisopropylamine and 58 tonnes of choline. 8 tonnes of phosphorus pentasulphide and 3 tonnes of choline were consumed for VX production. 73 tonnes of phosphorus pentasulphide, 174 tonnes of diisopropylamine and 200 tonnes of chloroethanol were destroyed by aerial bombardment in 1991. 170 tonnes of phosphorus pentasulphide, 55 tonnes of choline and the remaining 3.7 tonnes of degraded VX were destroyed by Iraq unilaterally in the Summer of 1991 without UNSCOM supervision.

2. UNSCOM Verification.

2.1. UNSCOM used a variety of sources for the verification of Iraq's declarations: field inspections, sample analysis, interviews with those Iraqi individuals involved in VX activities, information from the Haida farm documents and other documents obtained by UNSCOM in Iraq, and data provided by supporting governments. These led to significant progress in the Commission's investigation of Iraq's VX activities.

UNSCOM was able to verify more or less quantitatively the unilateral destruction of about 170 tonnes of phosphorus pentasulphide. The presence of choline was qualitatively confirmed in the area of its unilateral destruction. VX degradation products were found in samples taken from VX dump sites in Muthanna. However, UNSCOM was not able to verify the quantities of choline and VX destroyed unilaterally.

The presence of stabilizer for VX has been detected in VX degradation products which contradicts Iraq's statement that only 2 gm of stabilizer were used for R & D purpose.

Inconsistencies and sometimes contradictions between Iraq's declarations and data from Iraq's documents on the timing of the VX production, quantities of VX and VX precursors produced naturally have implications for the correct accounting of the VX programme.

2.2. UNSCOM Requirements.

To verify fully the extent of Iraq's VX programme, UNSCOM needs to receive the production records and R&D reports, including munitions trials, for the entire period of the VX activities including documentation on the formal ending of the program. To this end Iraq has provided only fragmentary evidence in related documentation. No evidence to support Iraq's declarations on its VX activities in 1989-1991 has been provided.

2.3. Concerns.

Information on VX was concealed in 1991 together with information on other retained types of proscribed weapons, like SCUD missiles, biological munitions and efforts in the nuclear area. This leads to the only possible conclusion that VX had and possibly still has significance for Iraq. Iraq's only explanations that the VX project was a failure are not able to settle these concerns.

To confirm the absence of possibly remaining VX capabilities, UNSCOM needs to know the scope of the VX programme and its developments, and to make its qualitative and quantitative assessment.

According to the conclusion of UNSCOM's international expert team, made on the basis of Iraq's declarations, documents provided by Iraq, and documents and other information available to the Commission, Iraq had the potential to manufacture, weaponise, and use VX. This includes:

a) extended R&D activities to find an appropriate route for the production of VX and to scale it up to pilot plant and industrial level,

b) production capabilities: equipment, know-how and experience to produce VX,

c) raw materials and precursors for VX production,

d) suitable munitions and weaponisation experience to have different types of weapons filled with VX, and

e) capabilities and experience to store VX precursors and components for VX filled weapons.

3. Questions to be clarified.

3.1. Military (operational) rationale for VX filled weapons and concept of their use.

3.2. Material balance of produced VX, including quantities and timing of synthesis in 20 litre vessels, 50 litre vessels and industrial batches.

3.3. Material balance of VX precursors (including stabilizers), produced and procured quantities and timing of their production and procurement, quantities consumed, quantities destroyed through aerial bombardment and unilaterally by Iraq.

3.4. Munitions designated to be filled and/or filled with VX in 1987, 1988, 1990, this includes types, motives and rationales.

3.5. Accounting of all R&D on VX, VX analogues ,VX precursors and munitions to be filled with VX.

3.6 Chemistry of VX and spectrographic identification.

3.7 The decision to abandon the VX program and its implementation.

3.8 Account for all munitions testing on VX, including binary VX.

3.9 Accounting for all equipment and facilities used for the VX program.

Attachment 3
to the Report on the Technical Evaluation Meeting
on Chemical Warfare Agent VX

IRAQI DELEGATION FOR THE TECHNICAL EVALUATION MEETING

Lt.Gen Amer Hamoodi Al Sa'adi	Former Senior Deputy Director of MIC
General Faiz Abdallah Shahine	Former Director-General of the Muthanna State Establishment (MSE)
Brig. Dr. Ala'a Mahdi Abbas Al Saidi Al Majid	Former Director of Analytical Department of MSE
Brig. Dr. Mahmoud Fars Bilal	Former Director of of R&D Center of MSE; later DG of MSE
Brig. Dr. Imad Hussein Abdullah Al Ani	Former Director of R&D Section of MSE; later Head of Fallujah 2
Brig. Dr. Ghazi Faisal Najam Al-Deen	Director of Al Farooq
Brig. Dr. Ra'ad Salih Rasheed	Former Head of Salah Al Din Department of R&D Center of MSE
Brig. Dr. Salah Al-Deen Abdulla Ali	Head Weapons Research at MSE
Brig Basim Mohammed Salih	Former Head of Al Mutassem Production Department of MSE
Col. Dr. Mohammed Jamil Abdul Ghani	Former Head of Ibn Hayan Production Department of MSE
Dr. Ayad Mohammed Rashid	Researcher, Salah Al Din Department, R&D Center of MSE
Dr Ihssan Abdul Ameer Jassim	Researcher, Salah Al Din Department, R&D Center of MSE
Col Dr. Issam Daoud Faisal	Former Head of Analytical Department of MSE
Col. Sa'adoon Kamil Khulfas	Former Director of Dhia Plant, MSE
Jassim Gaoud Mahdi	Researcher, Salah Al Din Department, R&D Center of MSE
Col Engineer Haidar Hassan Taha	Technical Dept (plant setup)
Mahmood Talib Dawood	Researcher, Salah Al Din Department, R&D Center of MSE
Ra'ad Kassim Hassan	Researcher, Analytical Department of MSE
Abbas Shansool Khadab	Researcher, Salah Al Din Department, R&D Center of MSE
Hussain Sahib Hassan	Researcher, Al Walid Department, R&D Center of MSE

Abid Al Majid Khorsheed Ahmed	Researcher, Analytical Department of MSE
Abid Al Wahab Humadi Radi	Former Head of Department in the Production Directorate of MSE
Nabil Jawad Khadum	Researcher, Weapons Research Department of MSE
Hussain Shamki Jabir	Researcher, Al Razi Department, R&D Center of MSE
Col Basim Mohammed Ali Salman	Head of Stores Department of MSE

Attachment 4
to the Report on the Technical Evaluation Meeting
on Chemical Warfare Agent VX

INITIAL CONCLUSION OF THE UNSCOM INTERNATIONAL EXPERT TEAM

6 February 1998

In the past week, the team has carried out extensive internal consultation in order to reach a consensus. The purpose of the TEM was to conduct, through discussions with our Iraqi counterparts, technical evaluation of issues related to the subject of VX. The TEM examined Iraq's declarations and data relevant to the subject of the TEM, and additional information provided by the Iraqi side in the course of the TEM.

The team feels able to assess the quality and amount of information available to the TEM. Although the team feels that there may currently be enough information available to assess the history of R&D of VX, in all of the other areas (up scaling, production, storage and stability, and weaponisation) there is insufficient information available to reach a definitive and final conclusion. Consequently, aspects of the TEM are not without merit but the TEM itself was premature.

The team is able to assess, on the basis of the information currently available, that, in the field of R&D, Iraq did successfully research the subject and was able to implement research at that level. Up scaling was studied, but the results were not without setbacks leading to delays in the programme. Iraq was certainly able to produce VX, and probably did produce VX in quantity.

Iraq had the capability to stabilise the VX produced, and may have done so. Weaponisation of VX presented no particular problem for Iraq, and may have been done.

The team does not feel that the level of verification achieved so far is satisfactory. There continues to be too much reliance placed by the Iraqi side on unsupported individual statements. The team will continue to study the problem and will make the appropriate recommendations to the Executive Chairman within the next week. These recommendations will cover the team's proposals on the further steps to be carried out, including the verification of remaining capabilities, sampling of VX-related sites and consultations with the Iraqi side. The results of the sampling exercise directed by the team will not be available for some time and will be incorporated into the team's findings.

The team has noted the statement made by the Iraqi side on behalf of the Government of Iraq in the course of the TEM that no VX or VX-related components, material and equipment remain in Iraq, and that there are no more documents on VX to be found.

The team will also report on the efforts undertaken by the Iraqi side during the TEM to respond to the additional questions raised by members of the TEM team.

The team has the following understanding of the technical issues:

- Research on VX started before the MSE era, as early as the mid or late 70's.

- MSE early on was interested in VX; first evidence of VX related work stems from 1984.
- By late 1987 the chemistry for VX and its precursors, synthesis, stabilization, and analysis were known to MSE. Several synthetic routes and several means for identification were available to the laboratory at MSE.

- By late 1987 MSE decided to produce VX at an industrial scale using route A, maintaining the di-ester route as an alternative production option. Precursors for approximately 200 tonnes of VX were procured and ample munitions were available.

- In the spring of 1988 successful industrial scale production trials were made at MSE; munition trials followed. These runs were finished by the end of May 1988. The consumption of chemical weapons by Iraq ended in August 1988. No production and no filling of VX munition is declared.

- By early 1988 the VX salt (Dibis) was considered as a possible answer to the problem of storing VX, and a nine-month trial began. By late 1988 production of stable VX precursors, such as 50 tonnes of choline began. Ample munitions, aerial bombs, 122 mm rockets and artillery shells, were available to MSE. The Dhia'a plant had been reconfigured for VX production and was held in that configuration for any future requirement for VX.

- Following the end of the Iran-Iraq war MSE priorities were changed: self sufficiency for precursors, improved production methods, binary weapons, strategic stores and new delivery means became the goals.

- Developmental efforts along all of these lines at an unverified scale proceeded throughout 1989, 1990, and beyond.

- In April 1990 munition suitable for long distance delivery means for VX were available to MSE. These weapons were never filled with VX according to the Iraqi declaration, since VX could not be produced by any of the means available to Iraq.

- As of December 1990 MSE was requested to produce VX, both as final agent and as intermediates.

- In spite of the failure of MSE to satisfy orders to produce VX; know-how, precursors, production equipment and munitions were either concealed from the Special Commission for several years or unilaterally destroyed.

- There has been a long history of misrepresentation of the VX-programme and as of this TEM, vital information remains to be revealed.

Attachment 5
to the Report on the Technical Evaluation Meeting
on Chemical Warfare Agent VX

**FINAL COMMENTS BY Lt Gen AMER HAMMOODI AL SA'ADI,
THE HEAD OF THE IRAQI DELEGATION FOR
THE TECHNICAL EVALUATION MEETING**

6 February 1998

Dr Reeps; Gentlemen,

We can't say we are entirely happy with what we have heard. Nevertheless, the door is open for further talks and discussion regarding the issue of Vx.. I would agree with your saying that the Technical Evaluation Meetings,- you used two negatives to indicate a positive,- were not without merit. I would put it more strongly, and say they were a very good development with merits which should not be interrupted. If it is your opinion that this round of the Technical Evaluation Meetings is premature, we believe they could be useful if repeated within a short time, particularly after further results are obtained from analysis. We believe the analysis would only corroborate our statements, and by then you will have a clearer understanding. That is on the one hand; on the other we would like to comment on the assessment. I had stopped writing, hoping to obtain a copy of this from you, but since you are unable to provide one, I will try and recapitulate.

The assessment regarding the R&D is correct and there is no quarrel with that, as we have seen during the Technical Evaluation Meeting and the discussions devoted to R&D information. As far as scaling-up is concerned, it was quite obvious during the Technical Evaluation Meeting that this was not done with due care and diligence, and that the Establishment rushed this phase unwisely, consequently receiving a setback late in 1987 and early in 1988, which resulted in - as you called it correctly, - a setback in production. If the scaling up had been done properly with due care, they might have come across the problems then that subsequently came up during production.

The Vx produced by Iraq on the technical scale or industrial scale as free Vx was unstable and no significant amount of Vx was produced by Iraq in this way . Since the Vx degraded rapidly, this could not be called a successful run. The correct term to use for this was, 'a production trial' which failed. Therefore Iraq cannot be considered to have produced stable Vx. The question of stability of Vx salt is correct as far as the quantity prepared in the laboratory and not at Dhi'a plant is concerned. It is now academic to talk about the stability of Vx salt at Dhi'a plant because it was never achieved.. Regarding the attempts that were made in 1988; the entire bulk of the trial batches was neutralised with sodium carbonate, liberating the free Vx. Since the free Vx degraded within a short time, this cannot be called a 'production'.

As for the question of Vx not forming a problem for Iraq, this is apparent only as seen in retrospect. At the time, it was a problem and the activities on Vx stopped for the two reasons we mentioned: one being the end of the war, and therefore a lack of interest; the second a lack of support for serious work and expenditure on perfecting production. There was no follow up of that either in 1989 or in the first quarter of 1990.

With reference to your conclusion about 1990, we demonstrated to the Technical Evaluation team that no production and no weaponisation took place up to December, in fact up to 5th of January, but the question "where is the Vx?" posed by the Minister, is construed to mean "you must produce Vx". No Vx was produced and no attempt to produce it took place after that. The establishment was on the eve of war and there was no conceivable possibility theat the Establishment could produce Vx in response to the Minister's wish. This is because events had overtaken this request via the production and delivery of the special warheads and the R400 bombs filled with the Iraqi binary. You did not specifically say that there were attempts to produce Vx after this request, but the inference I think, is there; that perhaps because Iraq decided to conceal its Vx activities, it must have been of significance, as you mention in your commentary. This was the reason for doing it.

This is the evaluation. Regarding the review of facts, it is mainly accurate; in the main it is accurate when we talk about history, except in connection with the availability of know-how. We have submitted to you our opinion that 'the know-how' means the capability of producing the material in bulk and having it in a stable, satisfactory form., This can only be achieved if production trials are completed successfully. No such production trials were completed successfully, so that the production procedure could be recorded and the instruction for such a procedure be formalised. That constitutes 'know-how' which could be followed. Therefore 'know-how' as such was not available or complete. If there was know-how it was only on the laboratory scale, without full understanding. This 'full understanding' became apparent only when we were considering the problem of Vx together with Unscom. In fact our people who worked on Vx are now more experienced in Vx and all its intricacies than at the time. This is a fact. I'm saying, having talked to them, that they now have a fuller understanding, and believe that if they were given the chance again, they could probably do it now, but could not have done so at the time. At that time there was no certainty regarding this. There is still dispute and debate even now. Was route A suitable, good or bad? Was route B practical or it was no good at all? Was the thio-choline the answer or was it the diester? There is some agreement as to which would be preferred but the conviction then was different. All this has matured in retrospect, whilst reviewing the whole thing, because we were forced to look at the issue again with Unscom. Had the Iraqi side been left alone everybody would have all be happy to forget all about it, and since they would never come across it again, why should they worry and look at everything again and review everything they have done.

After the end of the Iraq-Iran war it is stated in your review that the priorities of al-Muthanna changed. These priorities are given only as regards the CW portion of their activity. In fact al-

Muthanna State Establishment was overwhelmed with work in the civilian sector, and very little effort was expended on the CW programme, as it lacked financial support. R&D activities are not costly if they are conducted on a limited scale without much ambition. That did continue. The long term goals, as stated here, are taken from records which say so, but without allocating funds. This is specifically shown in the letter from the Presidency which says " these are the suggestions of the Ministry of Defence regarding future work in the CW area. Take the necessary measures without further expenditure and without asking for further allocations" This is a clear cut, first class document from a position of responsibility; it is not intended for public consumption, it is not intended for any eyes other than those of the people concerned. That is how matters were at the time. So to say that long term goals were set and funds allocated for it, is simply not true. With what you have now given us, there is now reason to look, perhaps, for financial records, - not from Muthanna because all those records are gone, but from outside - so that we may find whether there were any allocations for Muthanna in 1989 and if there were, what were they ? Then you would be able to see from that if any there were any allocations which would cover such an ambitious programme as you have outlined: the binary and the strategic stores; the development of production methods, and so on.

These are our preliminary comments on your initial assessment. My colleague, General Shahine, has a word or two to say.

General Faiz Abdallah Shahine:

I have two points. We talked about the plants which constitute the first point. You mentioned that research on Vx started in the seventies; this is not correct! I was working there at al-Haytham at that time, and there was no research on Vx, nor any evidence of it. I mentioned that, in our minds, we were thinking about Vx. Even at the beginning of the eighties, there was no work or research into Vx; the intensive work started in1987. That is the first point.

The second point is that you neglect the fact that, when there was a conference in1989, which Mr Sellstrom mentioned yesterday, there was a big mistake made in 1987 or 1988. That is a fact. It means that there was no successful work done in 1987 and 1988. The reason I mention that a mistake was made, and this is a significant fact, is to prove that there was no mass production or any production of technical Vx. Also there was the document which proved that, at the end of 1990: the letters to the Minister, and the inventory of December 25. There has been no concentration on this fact. The final conclusion leaves the issue open. You can consider these things to help reach a final decision or final approval about the situation of Vx. Thank you.

Lt Gen Amer Hammoodi Al Sa'adi:

I'd like to add just one point regarding the precursors. Iraq unilaterally destroyed the remaining

precursors, and this is later corroborated by the findings of the team led by Mr Cees Worterbeeck, regarding the quantity of P2 S5 destroyed, which proved that Iraq's declaration is correct. If we had that quantity, namely 170 tons, plus the quantity that was destroyed during the bombardment and the quantity consumed, we would have the full balance of P2S5, as a precursor which had been procured. This leaves no doubt whatsoever as to whether Vx was produced, because if more Vx had been produced, than we have declared, there would be shortages of this material. We have submitted evidence that MPC was in short supply, that the stock was practically finished, when this material was still being used in the production of G agents for the Iraqi binary and for Sarin for the 122 mm rockets. This continued during that period right up to a few days into January 1991, and the production director mentioned specifically that MPC was finished. It was not possible to use the MPC produced by MSE in the production because of technical problems, from the pyro route. All that does not leave any room for doubt; that there was no Vx stock prepared and no Vx munitions. The decision to unilaterally destroy the Vx and not to reveal the extent of the issue we have covered during the Technical Evaluation Meeting, and there is no other reason, absolutely no other reason. What other reason could conceivably be? This again leaves those who are fond of writing scenarios for this, but there is no evidence to support it whatsoever. We have seen many scenarios just fall down during this meeting because they were based on circumstantial evidence and references that were contained in promotional reports or pep-talks, not on the documents written from a position of responsibility. Thank you.

We are tempted to say a few more things but I don't think they are in the technical realm.

Enclosure II

REPORT OF THE SPECIAL COMMISSION'S TEAM TO THE TECHNICAL EVALUATION MEETING ON PROSCRIBED MISSILE WARHEADS (BAGHDAD, 1 - 6 FEBRUARY 1998)

1. The Executive Chairman of the Special Commission and the Deputy Prime Minister of Iraq agreed, in December 1997, to conduct, as part of the verification of specific issues, technical evaluation meetings (TEM). It was accepted that among the first two such meetings, one would deal specifically with the issue of proscribed missile warheads, including warheads for biological and chemical weapons. It was arranged that the warhead TEM would be held in Baghdad at the beginning of February 1998.

2. The Executive Chairman asked a number of Governments to nominate qualified and objective experts to take part and participate in the Commission's team to be sent to the warhead TEM. Based on responses received, the Executive Chairman formed the Commission's team composed of experts from China, France, Germany, Russia, United Kingdom and United States in addition to experts from the staff of the Office of the Special Commission. A list of the team members is in Annex 1.

3. The missile warhead technical evaluation meeting was held in Baghdad from 1 to 6 February 1998. It was originally planned to last five days but was extended by one day in order to allow more time for discussions of the main issues involved.

4. The Commission's team assembled in Bahrain on 22 January and spent eight days in preparation for the meeting. The team was provided with a full set of all of Iraq's relevant declarations and documentation, the Commission's inspection reports and analytical papers, and access to all relevant information in possession of the Commission. The team also received the "Missile Dossier" prepared by Iraq for the warhead TEM. The team prepared the missile warhead dossier with all relevant information for the TEM as background material for the meetings, and sent it to Iraq. The preparation work resulted in two commentary notes that outlined major issues for discussion and evaluation during the TEM. One commentary note dealt with general warhead issues and the second was devoted more specifically to biological and chemical warheads (special warheads). The commentary notes served as an annotated agenda for the TEM.

5. The warhead TEM was opened on 1 February 1998 in Baghdad. The delegation of Iraq headed by Lt. General Amer M. Rashid, Minister of Oil, included Iraq's officials and experts who were involved in various activities that were subject to discussions during the TEM. A list of Iraq's delegation is in Annex 1.

6. From 1 to 6 February, eleven plenary sessions were held in addition to working group meetings and field visits. During the first two sessions on 1 February, the Iraqi side made its presentations on the overall warhead material balance and on its accounting of special warheads. During these sessions, the Commission's team provided to the Iraqi counterparts its commentary notes. The TEM schedule of plenary sessions is provide below:

1 February	Iraq's and team's presentations.
2 February	Examination of issues related to warhead material balance and accounting.
3 February	Examination of issues related to warhead designs and testing.
4 February	Examination of issues related to special warheads and issues related to warhead material balance and accounting.
5 February	Examination of issues related to warhead material balance and accounting.
6 February	Examination of issues related to warhead material balance and accounting, and issues related to warhead production. Concluding session.

7. The purpose of the TEM was to conduct, through open discussions with Iraqi counterparts, examination and evaluation of issues related to proscribed missile warheads in order to enable joint evaluation of technical issues. The TEM examined Iraq's declarations and data relevant to the subject. The Iraq delegation participated in all discussions during the TEM and provided its comments to the team's outline of conclusions that were presented to the Iraqi side at the concluding session of the TEM on 6 February (Annex 2).

8. The Commission's team conducted the meetings in an open and transparent manner. Information and data that pointed to unresolved issues or raised concerns were shared openly with the Iraqi counterparts. Iraq was requested to provide its statements on unresolved issues. The team noted Iraq's efforts to provide answers to issues raised by the team. In most cases Iraq did not respond with official declarations or factual statements. Instead the Iraqi representatives offered mostly explanations that, in their view, described with various degree of probabilities and possibilities, events that could have resulted in the issues discussed during the TEM. The team was straightforward and forthcoming in presenting the facts on the subjects under discussion and its preliminary analysis of issues that resulted from explanations that were offered by the Iraqi counterparts. On several occasions, the Iraqi side vehemently objected to the introduction of all relevant facts and information for the team's consideration at the meetings. In many cases, the Iraqi side would withdraw or change its explanations if they were not satisfactory to the team. In a few cases, the Iraqi side promised to conduct further investigations and provide new or revised declarations, official statements or clarifications. Iraq has not provided the supporting documents to the team that the Commission had requested as a part of the preparation for the

warhead TEM. This request was reiterated by the Executive Chairman during his visit to Iraq in January 1998, immediately prior to the warhead TEM. During the TEM, the Iraqi side reconfirmed its position that it had provided to the Commission all available documents regarding the warhead issue, no other documents were available in Iraq and if any were found, Iraq would provide it to the Commission. One document related to warhead production, that had been found by an Iraqi expert, was provided to the team on the last day of the TEM.

9. After its departure from Iraq on 6 February, the Commission's team proceeded to write the present report concluding on 13 February.

Technical discussions of main specific issues.

10. The issues that were discussed during the TEM might be summarized in three main categories: warhead material balance and accounting of different types of warheads; indigenous warhead production in Iraq; and warhead designs and testing activities.

11. The issue of the material balance of warheads received priority attention. A serious attempt was initiated to establish, in an objective and technical manner, the accounting of proscribed missile warheads using warheads remnants that could still be found in Iraq. The TEM benefitted from the extensive excavation work done by Iraq, under UNSCOM supervision, to collect remnants of warheads that had been destroyed after April 1991. This re-excavation effort began in August 1997. Over 2,000 different items have already been re-excavated and catalogued. Prior to the TEM, three UNSCOM teams conducted expert analysis and assessments of the remnants retrieved. During the TEM, the Commission's team and the Iraqi side jointly reviewed results and findings of the re-excavation activities to establish the degree to which the excavated materials supported Iraq's declarations and what further efforts, if any, were required.

12. Through a joint effort, objective and reliable methods for identification of types of warheads and for the accounting for destroyed warheads were established. Based on the agreed methodologies, both sides came to practically identical figures (subject to minor variations) as to the numbers of warheads that could be identified among the remnants. This enabled them to synchronize factual findings to a great degree. Each side then made its own assessment of the degree of completeness of the warhead accounting that was achieved through the analysis of remnants retrieved from the destruction and burial sites. In its assessments, the Iraqi side used the total quantity of material re-excavated including both remnants of warheads destroyed under UNSCOM supervision and remnants of warheads that Iraq destroyed unilaterally in 1991. The Commission has focused on the unilateral destruction, as the destruction of other warheads had been carried out under UNSCOM supervision and thus, had already been verified. As in other areas of the material balance for proscribed items, the main problems in the warhead area relate to the unilateral destruction by Iraq of missile

related items in the second half of 1991. Iraq carried out this destruction without inviting the Commission to supervise as required by the Security Council resolution 687 (1991).

13. During the meetings, main categories of warheads were determined for the purpose of establishing the overall material balance of proscribed warheads. This includes: (1) special warheads (both modified from imported and indigenously produced); (2) imported combat warheads (conventional warheads and modified for special warheads); (3) imported combat warheads (conventional warheads only); (4) indigenously produced warheads (conventional and special). It was agreed that accounting of destroyed warheads under the first three categories was to be done by the identification of warhead nose cones among the remnants of destroyed warheads. Under the forth category of indigenously produced warheads, the accounting was to be based on identification of a key structural ring for this type of warhead.

14. Based on available findings and Iraq's current official declarations, the Commission's team has come to the following assessments in the accounting of Iraq's unilateral destruction of warheads:

(a) Under the category of special warheads, both modified from imported and indigenously produced, as declared by Iraq to have been unilaterally destroyed: The total number of special warheads found is 39 - 40. At this time 31 - 32 of them could be counted against the 51 that need to be identified through the examination of remnants i.e. 61%. The remaining 8 warheads were recovered from a destruction pit not previously identified as a site of the unilateral destruction of special warheads. Issues related to these warheads and their recovery site are discussed in paras. 16 - 18 below. The team and the Iraqi side could not reach a joint conclusion on how many indigenously manufactured special warheads needed to be accounted for using the established methods of accounting. Iraq considered that 14 nose cones needed to be identified; the team's opinion was 16. Iraq's assessment was presented in its delegation's concluding comments (see Annex 3). In a comparable category, the Iraqi estimate is at a level of 88% (70 warheads found out of 79 declared) based on accounting of the total quantity of material re-excavated including both remnants of warheads destroyed under UNSCOM supervision and remnants of warheads that Iraq destroyed unilaterally in 1991.

(b) Under the category of imported combat warheads (conventional warheads and those modified for special warheads) as declared by Iraq to have been unilaterally destroyed: 79 warheads were found out of the 118 that needed to be identified through the examination of remnants i.e. 67%. In addition to the 8 special warheads mentioned in subparagraph (a) above, remnants of 8 imported warheads were also found among remnants but they were not listed in Iraq's documents of the unilateral destruction. Issues related to these imported warheads are discussed in para. 19

below. Iraq's assessment was presented in its delegation's concluding comments (see Annex 3). In a comparable category, the Iraqi estimate is at a level of 85% (134 warheads found out of 157 declared) based on accounting of the total quantity of material re-excavated including both remnants of warheads destroyed under UNSCOM supervision and remnants of warheads that Iraq destroyed unilaterally in 1991.

(c) Under the category of imported combat warheads (conventional warheads only) as declared by Iraq to have been unilaterally destroyed: 58 warheads were found out of the 83 that needed to be identified through the examination of remnants i.e. 70%. As mentioned in the subparagraph (b) above, remnants of 8 imported warheads were also found among the remnants. Iraq did not present its assessment under this category in its delegation's concluding comments. During the meetings, there was no disagreement on the relevant figures except on the assessment of how to account for these 8 imported warheads.

(d) Under the category of indigenously produced warheads (conventional and special) as declared by Iraq to have been unilaterally destroyed: some 68 warheads were found out of the 96 that needed to be identified through the examination of remnants i.e. 71%. Iraq's assessment was presented in its delegation's concluding comments (see Annex 3). In a comparable category, the Iraqi estimate is at a level of 75% (78 warheads found out of 104 declared) based on accounting of the total quantity of material re-excavated including both remnants of warheads destroyed under UNSCOM supervision and remnants of warheads that Iraq destroyed unilaterally in 1991.

15. The work achieved prior to and during the TEM on the analysis of warhead remnants led to important progress in the accounting for different types of warheads. Based on its assessments, the team considers that the current scope and level of findings from re-excavated materials has not yet allowed for a satisfactory verification of Iraq's declarations on the material balance in the warhead area. Further work is required. The team conveyed, to the Executive Chairman, Iraq's proposal that the Commission bring into Iraq, very quickly, advanced survey equipment to find if there is any more buried material, to resolve the issue of the material balance of what had been destroyed.

16. In its commentary note of 1 February, the team identified a major problem with Iraq's declaration of the unilateral destruction of special warheads. Prior to the TEM, Iraq declared that special warheads had been unilaterally destroyed only in two pits in Nibai (termed the P1 and P6 sites). A considerable amount of remnants of special warheads have recently been recovered from another area (termed the P3 site), approximately 1 kilometre away from the P1/P6 area. Prior to the TEM, Iraq offered an explanation that this had been a result of activities of a farmer who had excavated

warhead remnants in the P1/P6 area, transferred and then buried them in the P3 area. The team came to the conclusion that the amount of remnants excavated in the P3 area, their composition and locations of their recovery, were more consistent with this being a separate destruction activity area. If this were the case, it would indicate that more special warheads had been produced and destroyed than were declared by Iraq.

17. At the TEM, the Commission's team presented its findings to the Iraqi side. The team stated that based on available data it could be concluded that, at least 8 special warheads, most probably biological weapons, had been destroyed at P3. In response, the Iraqi side offered a new explanation of a preliminary nature. It stated that there was a possibility that a significant amount of chemical warheads (up to 13) had been destroyed at P3 on 11 July 1991. Iraq promised to conduct an investigation of this issue. This preliminary explanation was offered without officially withdrawing the previous one. In the team's assessment, the new explanation could not explain already known findings at the P3 area and is not consistent with Iraq's other explanations related to the designs, production and destruction of chemical and biological warheads. Other available evidence still remains unexplained including the types of warheads destroyed, method of destruction, etc.

18. It should be noted that Iraq's official declaration on the unilateral destruction in Nibai had previously been corroborated by interviews with all Iraqi personnel who were involved in the destruction activities in Nibai. All of them unanimously supported the statement that all destruction of special warheads had taken place in the P1/P6 area. During the TEM, the Iraqi side did not provide any new individuals who could corroborate the new explanation of destruction activities at P3. The team also noted an obvious contradiction between the new explanation and Iraq's official statements until recently that an UNSCOM inspection team had actually verified the destruction of 45 special warheads in April 1992, shortly after Iraq declared their unilateral destruction in 1991. In 1992, Iraq presented to this UNSCOM team 43 missile warhead nose cones in the P1/P6 area as evidence of destruction of the 45 special warheads there. At the TEM, the Iraqi side stated that "there had been, with good possibility, due to a reason which is not clear now, a movement of conventional warhead remnants from a nearby destruction pit to where the special warheads were destroyed". No definite statement was made by the Iraqi delegation whether this "movement" of nose cones had been intended to tamper with evidence of destruction. No factual information has been provided on the related events. Based on available data and Iraq's explanations, the team could not come to a conclusion whether the special warhead nose cones that had recently been found at P3 were in addition to the 45 special warheads verified by the UNSCOM team in 1992 or were from the same 45 special warheads that Iraq had declared as unilaterally destroyed between 9 and 11 July 1991. Iraq made a statement to the team that the newly recovered special nose cones from P3 were from the 45 declared special warheads. The team believes that until all issues related to the destruction activities at the P3 site are fully investigated, clarified and resolved, a material balance of special warheads can not be established. This remains a major

issue in the verification of Iraq's declaration of the unilateral destruction of special warheads.

19. Iraq's declarations and opening presentations to the TEM included the accounting for the consumption and destruction of all 819 imported warheads. According to this account, there should have been no imported warheads remaining at Project 144/2, Iraq's warhead production establishment, after the war in 1991. Contrary to this, materials re-excavated in areas associated with Project 144/2 contained remnants of some ten imported warheads. None of them appear to be recorded in the unilateral destruction documents. Remnants of other excavated warheads have revealed that a number of warheads that Iraq had declared and accounted for as imported ones turned out to be Iraqi produced. These findings were presented to the Iraqi side at the TEM. Following an Iraqi request, the TEM participants made a field visit to assess the remnants of undeclared imported warheads. Using agreed methodologies for warhead identification, it was confirmed that the team's findings had been correct. As a result, the Iraqi side stated that some 6-8 warheads might have been destroyed unilaterally without this being recorded in consumption diaries of the destruction. Iraq offered an explanation that some of these warheads might be included in available documents concerning the destruction of Project 144/2 items without specifically mentioning them. According to this explanation, others might have been listed in documents that could not be found. Iraq also answered that two warheads that had been declared as modified from imported warheads were, in fact, Iraqi made warheads. The Iraqi side then stated that all these findings would in no way affect the final material balance of destroyed imported conventional warheads. In the team's view, as the new findings are not reflected in the current official declarations, the declared material balance of proscribed warheads, especially in the area of the unilateral destruction, needs to be changed. The team believes that the resolution of these issues is required to establish a definite material balance. The team expects the Iraqi side to provide an official statement on these issues.

20. The key Iraqi documents that were offered in support of the material balance of imported warheads, recorded the consumption of a number of imported warheads twice. At this stage some 25 cases have been identified. Of a particular concern to the team was that this duplicate accounting affected special warheads disproportionately. Iraq's explanation was that this duplicate listing might have been the result of Iraqi made warheads being placed inside warhead shipping containers from which original imported warheads had already been consumed. This explanation was found by the team to be inconsistent with Iraq's other declarations on warhead consumption and destruction.

21. At the TEM, Iraq offered, as explanations, several suggestions of varying degree of probability. They were based on an assumption by Iraq's delegation that warhead serial numbers which appeared on imported shipping containers, when they were re-used with chemical warheads, had not been blackened out contrary to what had been

previously stated. Iraq explained that common painting of all special warheads, both modified from imported and indigenously produced, might have led to mistakes by the Army in recording Iraqi produced chemical warheads. Iraq stated that these mistakes might have affected only 2-5 chemical warheads out of a dozen cases that were recorded as duplicate listings in the consumption diary of the unilateral destruction. No explanation was given as to how this number had been derived and why the recording of other warheads had not been affected by similar mistakes. It remains unexplained why serial numbers on shipping containers with Iraqi manufactured biological warheads had been blackened out and a common painting of biological warheads, both modified from imported and indigenously produced, had not led to the similar mistakes by the Army. The new explanations also did not correlate with inventory procedures as described by military officers who had been directly involved in the maintenance and inventory control of warheads until their destruction. According to them, under the procedures in force at that time, the inventory of warheads had been done and updated regularly based on documents accompanying the warheads and not through the visual checking of the exterior of warheads in shipping containers. Inventory documents that accompanied imported and indigenously Iraqi produced warheads were very different, thus, excluding the possibility of misidentification of the warheads during the inventory control.

22. Iraq pointed out that some of the shipping containers at Dujail, where chemical warheads had been presented to an UNSCOM team in 1991, held imported warheads with mismatched serial numbers. The implication of this could not be properly assessed until further investigation of other irregularities with chemical warheads at Dujail could be carried out and completed. This includes Iraq's change in the explanation of agent codes on warheads and shipping containers, mismatches between agent codes on warheads and on their shipping containers.

23. The team did not find Iraq's explanations of the duplicate listing of serial numbers to be consistent or capable of providing an explanation for all known cases. The team recommends further investigation to establish the real causes for the duplicate listings of imported warheads. In the team's view, the current status of this issue adversely affects the accounting of imported warheads and the overall warhead material balance.

24. As the results of the discussions during the TEM, the Iraqi side has indicated that it might change its current declaration of the warhead material balance to increase the number of imported warheads that were destroyed unilaterally and to redistribute the allocation of special warheads between categories of imported and indigenously produced warheads. Iraq did not submit an official declaration during the TEM.

25. Analysis of re-excavated remnants and of inspection records have revealed evidence that is not consistent with Iraq's declarations and explanations with respect to the markings on warheads. This includes, in particular, special warheads and H3 warheads. During the TEM, the team sought a clear understanding of Iraq's system of markings on warheads in order obtain additional supporting information for verification

of Iraq's declarations and for establishing a reliable accounting for warheads. Iraq provided a number of explanations mainly from the recollection of its experts and military personnel. In one particular case, Iraqi counterparts admitted that its previous statements on the marking of chemical warhead agent fill had been completely erroneous. In the team's view, it is difficult to understand how such mistakes could have happened with dangerous weapons of mass destruction that indeed would absolutely require unambiguous and distinct markings to prevent mishandling and misuse. Iraq's explanations of evidence related to the production serial numbers on special warheads conflicted with Iraq's declared production schedule, filling and deployment of warheads. Concerning H3 warhead markings, Iraq offered explanations that differed from the previous ones and need to be further assessed. Iraq's explanations on the timing of markings of biological warheads have introduced new information relevant to a schedule of production, filling and deployment of biological weapons. These issues will be examined at the forthcoming technical evaluation meeting on Iraq's biological weapon programme.

26. The team considers it important to obtain a full understanding of Iraq's warhead markings, in particular, of special warheads, in order to ascertain types and quantities of special warheads produced and destroyed. The team believes that continued investigation of warhead markings is warranted as part of the efforts to achieve a definite and verifiable material balance in the warhead area.

27. The Commission's team selected for discussion and evaluation at the TEM the following issues related to indigenous warhead production in Iraq: warhead production process and key technological operations; warhead production orders and their implementation; impact of warhead designs and technological features on production; and the accounting of imported warhead key components.

28. Iraq's declaration of the total amount of warheads produced indigenously is derived by summing the declared quantities of warheads destroyed and other warheads that Iraq claimed had been expended. Except for one case, there are no documents made available that contain independent data on actual production or acquisition of indigenous warheads. The available Iraqi document mentioned that the warhead production workshop (shed 12 of Project 144/2) had 40 Al Hussein warheads on 16 January 1991. This figure did not correlate with other Iraqi declarations and clarifications. Iraq's explanation of this figure that was offered during the TEM, was not consistent with other data contained in the same document.

29. Due to the absence of practically any supporting documentation to confirm the declared figure of actual production of indigenous warheads, the team attempted, based on discussions with Iraqi experts, to conduct technical evaluation of Iraq's pre-war industrial warhead production capabilities and limitations. The team believes that additional discussions with Iraqi experts on the production capabilities and the provision by Iraq of supporting documents are necessary to pass a sound technical evaluation and verify Iraq's declarations and clarifications.

30. By raising issues related to production orders and their implementation, the team sought to obtain an understanding of the production planning for warheads, in particular special warheads. The team's analysis is mainly based on Iraq's explanations which are constructed from the recollection of Iraqi experts. In the team's opinion, the declared figure of the total production of 121 indigenous warheads is credible on the assumption of a twelve month production period. Iraq's explanations were not clear enough regarding the actual time frame of the production of those warheads, when production of various types of warhead started and ended. Open questions remain as to the schedule of the production of special warheads both for chemical and biological weapons.

31. To resolve outstanding issues the team believes that additional efforts should be made to obtain Iraq's warhead production records. During the TEM, Iraqi experts were requested to fill a production planning chart. Unless the chart is completed and supported with documents (such as acceptance documents for produced or modified warheads and completed work orders), no solid evidence can be obtained to prepare an objective technical evaluation. Without such evidence, experts will be unable to verify the declared warhead production rate, including the total number of warheads produced indigenously.

32. By addressing the technical issue of designs of warheads under production, the team sought an understanding of Iraq's need for specific key components which depended on different warhead configurations. Clear technical definitions and descriptions were to serve as a basis for the assessment of the Iraqi presentation on the warhead material balance with respect to indigenously produced warheads and their accounting. The explanations received during the TEM concerning designs of warheads under production showed consistency and were supported by the analysis of warhead remnants excavated. The explanations allowed the team to clarify inconsistencies in Iraq's FFCD dated July 1996. The Iraqi side should be requested to provide written statements to confirm its explanations.

33. The team agrees that a full understanding of the acquisition and production of key warhead components is a useful way to ascertain the maximum number of warheads that could have been produced in Iraq. During the TEM, the team studied Iraq's presentation of the declared material balance of warhead key parts, in particular two types of warhead structural rings. Clarifications of the acquisition, consumption and destruction of these rings were sought. 121 imported rings of one type (out of 196 declared as imported) were found in the warhead remnants. Analysis of information provided by the Iraqi experts during the TEM led the team to conclude that the declared consumption of imported rings seems credible. It should be noted that change in the declared balance of imported warheads vs. indigenously manufactured warheads would consequently change the current figure of consumed imported rings. The team recommends that the recovery and analysis of rings that serve as a unit in the accounting of indigenously produced warheads continue.

34. Iraq stated that it had been unable to produce one of the key warhead rings either from imported unmachined rings or from its own raw materials. On the other hand, Iraq stated that it had the capability and had actually produced other rings. The team's assessment is that since the production processes used by Iraq were similar, Iraq should have been able to overcome the declared difficulties in the production of the key rings. The team recommends that in order to establish a reliable foundation for the accounting for indigenously produced warheads, Iraq should attempt to account for all imported key rings, both finished and unmachined. It is also suggested that an effort be applied to locate the unused imported rings.

35. In the team's assessment, verification work in the area of the production of indigenous warheads needs to continue, especially to ascertain the total number of indigenously produced warheads and to settle relevant warhead production issues raised by the team.

36. The re-excavated remnants and other materials, such as documents, drawings and video tapes obtained by the Commission at the Haidar farm, contained important evidence of warhead designs and testing activities that, in the team's opinion, needed to be examined with Iraqi experts. In most cases, there were indications of undeclared activities by Iraq. The team presented a list of specific cases to the Iraqi side for explanation. During the TEM, the team showed all drawings and video tapes depicting events or items to be discussed. The team accommodated Iraq's request for a preview of these materials ahead of the experts' discussion. Due to a shortage of time it was not possible to conduct in-depth expert examination of the warhead design and testing issues. A few cases involving activities with separating warheads were discussed. A final assessment of explanations offered by Iraq will have to be made in light of explanations on other issues still to be provided by Iraq.

37. The team recommends that a specialized inspection team be scheduled to address all issues of warhead design and testing with Iraq's experts. The team also suggested that a letter to be sent to Iraq asking for written explanations, to be provided prior to this inspection, on all design and testing issues raised during the TEM. In the team's opinion, the issues for clarification raised by the team relevant to warhead design and testing are important to obtain a full technical understanding of Iraq's achievements in warhead related activities.

Main conclusions

38. In addition to the team's assessments and recommendations contained here above, the team puts on record the following main conclusions and comments:

a. Through the TEM and other inspection activities, important progress has been achieved in the overall accounting of proscribed missile warheads. Findings from the re-excavation of warheads remnants have provided valuable data for analysis and evaluation. The team has not found the level of verification achieved so far to be satisfactory. Further work is required.

b. Less progress has been achieved in the accounting of Iraq's declared special warheads for chemical and biological weapons.

c. Issues that were raised by the team related to the warhead material balance and accounting such as duplicate counting, warhead destruction activities and warhead markings, need to be fully resolved to enable the establishment of a solid and verifiable material balance in the warhead area.

d. The Commission still needs to obtain a full picture of Iraq's warhead production. The team believes that Iraq's warhead production and acquisition records are the best way to ascertain relevant facts.

e. Issues for clarification raised by the team relevant to warhead design and testing are important to obtain a full technical understanding of Iraq's achievements in warhead related activities.

f. The team's experts consider that they would have benefitted more in their evaluation work, if factual answers had been provided by the Iraqi side rather than explanations of various degree of probabilities that were difficult to assess in a scientific and objective manner.

g. The TEM in general proceeded in a professional manner.

39. The Governmental expert members of the Commission's team would like to place on record their appreciation for the assistance that they received from their colleagues from the UNSCOM staff. The UNSCOM staff members are highly qualified experts with in-depth knowledge and technical understanding of issues in their respective areas of responsibility. Their contribution to the team's work, by briefings, information sharing, analysis and evaluation, was always done in a professional and objective manner.

40. The team is grateful to the Government of Iraq for its hospitality.

41. The present report has been jointly prepared by all team members, unanimously approved and adopted on 13 February 1998.

Annex 1

Lists of Iraq's delegation and the Commission's team
at the Technical Evaluation Meeting on proscribed missile warheads
(Baghdad, 1 - 6 February 1998)

Iraq's delegation

Lt General Amer M. Rasheed	Minister of Oil, Former Deputy of MIC Director
Major General Ra'ad Asma'el Jameel	Former Director of Project 144/2
Major General Hussam M. Amin	Director of the National Monitoring Directorate, Former Senior Officer in Project 144
Brigadier Engineer Kamal Abed Mohammed	Former Senior Officer in Project 144/2
Brigadier Engineer Azhar Abed Al-Khadil Jawad	Former Senior Officer in Project 144/2
Brigadier Husham Mohammed Asma'el	Former Staff Officer at the Missile Force
Brigadier Asma'el Sa'eed Ahmed	Former Commander of the Technical Battalion, Brigade 224
Brigadier Mahmoud Feraj Bilal	Former Senior Officer at MSE
Brigadier Ala'a Mahdee Al-Sa'aed	Former Senior Officer at MSE
Lieutenant Colonel Sinan Abed Al-Hasan Mohyee	Former Officer at Al-Hakam Factory
Lieutenant Colonel Asma'el Ahmed Salih	Former Officer at Al-Hakam Factory
Colonel Mar'ee Hussain Audhaib	Former Commander of the First Maintenance Unit S.S. Missile Force
Colonel Hameed Mohmoud Al-Mashhadani	Former Battalion Commander in Brigade 223
Colonel Abed Al-Rassak Tarish Zboun	Former Senior Officer Project 144
Colonel Karim Mouhsin Alwan	Former Senior Officer Project 144
Lieutenant Colonel Laith Abed Al-Khadir Hameed	Former Officer in Project 144
Lieutenant Colonel Talib Hamza Awad	Former Officer in the First Maintenance Unit
Colonel Mesheb Hashim Hamad	Former Senior Officer in Project 144
Lieutenant Colonel Raad Manhel Ali	Former Officer in MSE
Chemist Muneer Abed Taih	Former Chemist in MSE
Brigadier Ala Rasheed Al-Ja'afaree	Former Senior Officer in Ababil Project
Dr. Assam Jasim Khadim	Former Engineer in Project 144

The Commission's team

Nikita Smidovich (UNSCOM staff/Russian Federation)
Ilya Adyasov (Russian Federation)
Fouad El Khatib (UNSCOM Staff/Republic of France)
Frédéric Fricot (Republic of France)
Curtis Gentry (United States of America)
Christian Hoherz (Federal Republic of Germany)
Jean Jano (UNSCOM Staff/Federal Republic of Germany)
Chen Jianfeng (People's Republic of China)
Hamish Killip (United Kingdom)
John Larrabee (UNSCOM Staff/United States of America)
Boris Looshin (Russian Federation)
Andrew McGill (United Kingdom)
Igor Mitrokhin (UNSCOM Staff/Russian Federation)
Norbert Reinecke (Federal Republic of Germany)
Gail Shepherd (United States of America)
Oleg Skabara (Russian Federation)
Dick Spertzel (UNSCOM Staff/United States of America)
Jerry Threatt (United States of America)
Xin Wanqing (People's Republic of China)

Annex 2

Comments and remarks made by Lt. General Amer M. Rasheed, Head of Iraq's delegation, at the concluding session of the missile warhead TEM on 6 February 1998.

Regarding the material balance, *[I have several points]*[1]:

1. Both teams discussed the material balance in an objective and constructive *[manner]* and agreed on a methodology for this, based on the nose cones for the Soviet warheads and for the Iraqi and Soviet special warheads as the key element. Also, the U-ring and the connecting ring were used as the key element for the accounting for the Iraqi warheads.

2. The material balance for the special warheads, total, shows that 70 were destroyed, including both by UNSCOM and unilaterally, out of the declared 79 warheads. This is 88%.

3. Soviet combat warheads material balance shows verified destruction of 134 out of 157 declared by Iraq, if you add all Soviet warheads, conventional and special. This is 85%.

4. For Iraqi warheads, conventional and special, 78 were verified destroyed out of 104, which is 75%. So we preview it, so we got it right. I am saying here briefly on material balance, we have agreed on the methodology of verifying the destruction. When we apply this *[to]* the special *[warheads]*, Soviet plus Iraqi, we have 88%. When we applied this to all Soviet, we have 85%. When applied to all Iraqi, we have 75%.

5. This is a very significant progress of achievement compared with the situation in July 1997 when UNSCOM said only 30% of Soviet warheads were verified, not verified, were accounted. Even though this is a very significant progress, the Iraqi side requested UNSCOM many times during the TEM, to bring advanced survey equipment to find if there are any more buried material, especially near P3, very, very quickly, to resolve this issue of material balance of what has been destroyed. Our suggested timescale is to start this next week, for on one week, and then it might take us another two weeks for excavation and bringing out the remains and analysing them. So that, we have, hopefully, a final resolution by the end of February, before Mr. Butler's arrival in Baghdad on 2 March.

Just to help you, this is not for note taking. Mr. Butler last night, in the Security Council, said: "What is the situation in Iraq regarding this Special Commission work, on VX, Anthrax and warheads...", so I am talking *[about]* the warheads,....."how much has been destroyed compared to Iraqi declaration." This is what he said. So it is so important to concentrate on the material balance of what has been destroyed. This is

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[1] Words shown thus has been added to aid clarity.

the major significant issue and let us not exaggerate minor detailed issues. This is the central focus of this issue. I would like, please, Mr. Nikita, later on, let the experts say if they disagree on this being the most significant issue. We should focus on this material. If there are different people offering their views, I would like to discuss this.

6. Iraq has agreed with UNSCOM, through joint work, to try its best to differentiate between biological and chemical warheads which are excavated.

7. Last point on material balance. Iraq assured UNSCOM and the team's experts that it had made all documents available to it regarding the warhead issue. But most important of all, regarding the production of these warheads, I mean the quantity of 50 chemical warheads plus 25 biological special warheads. Until now, we have not seen any criticism of these documents, but only had incidents which, from the UNSCOM's point of view, find it difficult to confirm these documents by the Iraqi declaration. Iraq has provided possible explanations to apparent discrepancies or even apparent contradictions. But most important of all, the fact that what has been produced is 50 CW and 25 BW, is supported fully by documents. If UNSCOM has any information contrary to this, Iraq is always ready to cooperate to find possible explanations.

So, this is on the main issue of why we were here. Now we come to what I call: answers on concerns raised during TEM.

1. In April 1992, UNSCOM 35 verified initially that there were 43 special warheads, depending only on the nose cone, and not on the lead mass in them, as is the case now in 1997 and 1998. It is not possible *[to say]* how many were special and how many conventional. Iraq thinks that there has been, with a good possibility, due to a reason which is not clear now, a movement of conventional warhead remnants from a nearby destruction pit to where the special warheads were destroyed, before the arrival of UNSCOM 35. And since it is impossible to correlate verification (one of them not scientific, because no lead mass taken into account) with what happened between two events with a six year difference. There is no possibility to correlate.

2. Regarding P3. The site at Nebai is well known to UNSCOM being without landmarks, a large site, not populated at all. Since the Iraqi side did not have any maps at the time or now, of the site, or the area, it would be rather difficult to remember site - let us not call it site, let us call it a pit location of destruction. It is meaningless to make a conclusion, sorry, findings, on why Iraq has not declared location P3, when it is only a recollection by memory which was used. We even think there might be a another pit near P3 or possibly in the whole area. That is why Iraq is requesting earnestly to bring advanced equipment by UNSCOM to ascertain this issue.

3. Iraq stated to the team that it is now certain that the numbers on CW warhead shipping containers were not covered by paint. In addition, Iraq said to the team that, both Iraqi and Soviet special warheads were painted similarly so that their external appearances are the same. As a conclusion on this point, this has caused that Iraqi special warheads were designated as Soviet warheads due to the number on the

shipping container. There is a high probability, that the number on Soviet warhead which had been painted, will not correlate at all with the number on the container. This is a very solid explanation to the major concern of UNSCOM. Due to the common painting of Soviet and Iraqi warheads (and even Project 144 did not pay attention to special warheads, which one are Iraqi and which one are Soviet), this led the missile force not to think that there are Iraqi special warheads. So they did not know they were Iraqi warheads, they took for granted that these Iraqi special warheads are Soviet warheads. And they only discovered this at the time of the CDG destruction at Muthanna. Also Project 144 cannot ascertain precisely how many Iraqi special CW warheads were produced. They think it might be 10 to 13 warheads, as a possibility. This led Iraq to state that what was quoted as Soviet special warheads in consumption diary number 10, if I am not mistaken, are not all Soviet warheads. But there might be 2 to 5 Iraqi warheads with Soviet numbers being those of the containers in which they are positioned.

As a solid proof of the above, we find that even with the Soviet warheads destroyed by UNSCOM, there are 5 warhead numbers which do not correlate with the numbers on the containers. Four of them are the same, and four of them correlate with conventional warheads fired against Iran, and one destroyed unilaterally by Iraq (diary number 10.)

Last point on this. As an answer to why this doubling occurred predominately on the special warheads and little on the conventional warheads, is because of painting, which we have explained above, of the Soviet and Iraqi warheads. There could be no checking of the serial number of the warhead even if the container was opened. Also because special warheads were manufactured in Project 144 at a later date when there were many empty containers, consumed containers, sent to Project 144. Not like for H-2 warheads when there were few conventional, the number could be easily checked by opening of the container.

Another subject, 7 (±1) Soviet conventional warheads in Project 144 after the cease fire. Based on UNSCOM ascertaining that remnants of these warheads are from P7, the explanation which we could give to this is the following:

1) 3 of them which are cut into halves, are part of 77 halves in the Project 144 destruction diary. There is no definition of the 77 warheads as Iraqi or Soviet. It is written in the diary 77 halves of warheads. It does not say Soviet or Iraqi.

2) The other 2 complete warheads and another 2 (±1) of remnants of warheads were not found in the Project 144 destruction document. Possibly there was a document and we can not find it. For the 2 complete Iraqi warheads, we had a separate document of the project.

As a conclusion, we find that this issue is a matter of explanation and clarification. Taking into account the above remarks and knowing that some of Iraqi

special warheads destroyed unilaterally have been assumed as Soviet, in addition to the swapping of two warheads between Soviet and Iraqi as Al Hijaras, this, in absolutely no way, will affect the final material balance of destroyed Soviet conventional warheads.

Another point. UNSCOM has clarified to the Iraqi side that what it has destroyed in 1991 of Al Hijara warheads, is not three Soviet plus one Iraqi but three Iraqi and one Soviet. This is another proof that there is no correlation between the number on the warhead and the container. It shows that the Iraqi missile forces have taken for granted the Soviet number on containers which contain two Iraqi warheads.

Another point. UNSCOM raised a question of two Iraqi empty warheads which were near the Technical Battalion in July 1991 during UNSCOM 3. We think, Iraq thinks this will not change the Iraqi declaration. This could be either conventional or Al Hijaras and need to be jointly thoroughly investigated.

Another issue. UNSCOM raised a concern on production documents of shed number 12. This was an answer to a request by the director of Project 144 on 8 June 1991. The request says: "Give me production status." It doesn't say, have you produced? It is a pity this has not been given to UNSCOM. So as this is production status, to the best of our understanding, the numbers 40 of Hussein warheads is what was in the shed before 16 January 1991. What has been mentioned about the repairs of 7 special warheads, has been done before 17 January on the special warheads.

Another point. UNSCOM has provided to Iraq a solid proof during the meeting that marking "A" on chemical warheads corresponds to Iraqi binary, and "A+B" to Sarin. This was a major confusion for the last few years. But still a question remains to be settled, of minor importance: has Muthanna put such letters on shipping containers. Was this done or not?

Another point and the last one. Iraq was presented with a document of only two lines of a list of many lines where there is an indication of the designation of 3, 4, 5 to special warheads on 13 September 1990. Iraq requested that the complete list be given to provide a reasonable explanation. However, till this is done, Iraqi specialists do not recollect any reasonable information to explain this date. However, this date shows that there has been preliminary planning for designation of biological agents filling of warheads. At that time, mid-September, especially Al Hakam site was, at that time, designated for filling. If this is true, it in no way affects the statements in the FFCD regarding the actual filling of warheads in January of 1991, and in no way affects the material balance.

TEM Proceedings and General Conclusions.

1. Iraq valued very much the importance of such TEM meetings and consider it a good modality for working jointly and in a transparent fashion, and in cooperation.

2. However, we note that it is much more useful and important to concentrate on issues of significance and importance to the material balance and the significant understanding of the Iraqi programmes and not on minor issues, especially technical details, and not to try to exaggerate their importance and influence of these points on the overall file.

3. It is very important when we make the overall assessment to pay the same attention to what has been achieved, not to talk about what is not filled in a glass of water, from this file. It is very important because the Security Council or the multinational community, will not go back to the previous minutes of meeting, and to previous reports. They want conclusions. So when you tell them there are remaining this issue, this issue, this issue, you give wrong perception. And this leads to suspicions and misunderstanding. So in this respect, I ask you, please, revise what Mr. Smidovich calls main points where minor issues give conclusion to significant points unnecessarily and could easily give wrong perception of what all of us have achieved.

Last major issue on TEM. We ask you officially, in about two to three weeks time from now, to convene the same meeting to review, analyse and evaluate what all of us will do, especially using advanced equipment of UNSCOM on excavations we will conduct jointly, and also to reflect by your side and our side on the issues which have been raised. Possibly we did not give *[them]* enough time, all of us, both sides, for examination, for serious and in-depth examination.

And at the end, I would like to thank you for what has been provided to us to remove your concerns in terms of some video, some drawings, and "farm" documents which we are sure have helped UNSCOM to build up of better understanding. And we hope that this mode of work will be even strengthened and widened further to resolve this file. This is on the technical report.

I have two more points.

One of them, even Nikita will say this is political statement, but in the end we are discussing a problem of the agony of the Iraqi people, *[this is]* without saying who is to blame or not to blame for it. Definitely there is a genocide in Iraq, children, women, elderly people, normal people, extreme human suffering. This can be removed if you as experts contribute to the closing of the file. I am sure that it is contrary to the conscience of any human being to let suffering of Iraqi people continue because of a minor technical issue, or a minor technical detail which *[need]* to be resolved. Result is significant if Iraq has weapons. We respect concern if it is significant to the mandate. So please concentrate on the main issue, that is, has Iraq destroyed all its weapons, not on details. While we could always answer you, but to give priority on this issue. And it will be unwise, and I would not be only an Iraqi but also a human being not to tell you this.

An issue I have asked Mr. Smidovich, if possible, I want responses from experts who joined us for the first time in such meetings with UNSCOM, to see their reflection

on what I have just said as Iraqi conclusions. Especially the Chinese experts, Russian, French experts, German expert as the new experts who were not with us. We know you came under the UNSCOM umbrella. Ask you to make reflections on the main issues of significance, not on technical details or minor issues. My Government would be very much interested in our reflections.

Thank you for your patience.

Lt. General Amer M. Rasheed's final remarks

We have endeavoured before the start and during the meeting to make a very successful TEM, took every measure on technical level, logistical level and in the mode of discussion except for some instances which do not affect the overall cooperation, to make it a success. We think it is quite a success. It could be better. I ask to continue this modality to resolve this file as soon as possible.

I ask you officially to review seriously your conclusions, taking the conclusions and remarks I gave you on behalf of Iraqi side. *[Do it]* thoroughly for better understanding between Iraq and UNSCOM. Failing this, or if you can take only part of the conclusions, I ask you, Mr Smidovich to give to Mr Butler not only your conclusions, but also to pass to him our conclusions. Annex I *[to be]* our conclusions, Annex II - Iraqi conclusions.

Make the report in a very constructive, objective language, which highlights the significant issues and does not put a lot of importance on minor issues or technical details. In the end I assure you of our full cooperation and full transparency. We have a very good reason to do this, to remove the suffering and the genocide that is being conducted every day on our people and no one cannot have a conscience about this. This is driving us above all other elements and factors. And thank you very much for your patience with us, and I have one extra thanks that you have accepted one day longer, even if it is part of the modality. I know it was not your pleasure, but you've done it to finish the job. I thank you for your understanding.